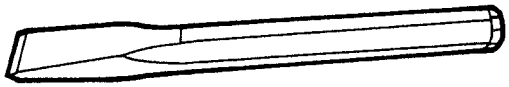
Chapter 26 CHISELS

HOW TO CHOOSE AND USE THEM

The “Types and Uses” section provides you with a list of some of the types of chisels. These pages should help you select the right chisel to do the job.

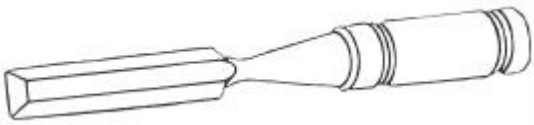


The “Using” section tells you how to use the chisel to perform the desired function. The “Care” procedures tell you how to care for the items.

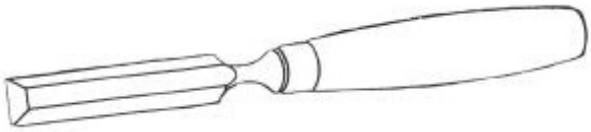
INDEX

TYPES AND USES

WOODWORKER'S CHISELS



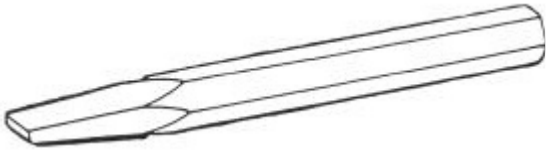
There are two types of woodworkers chisels. The socket type has a blade and socket handle forged of high carbon steel in a single casting. The wooden handle is inserted into the socket. This type of chisel is used to cut and pare off wood. Generally socket-type chisels are used for heavier cutting when a hammer or mallet may be required for additional driving force.



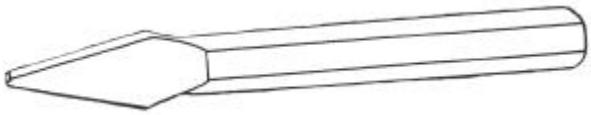
The tang-type chisel is forged in a single casting. The handle is drilled and inserted over the tang and reinforced with a metal band. The tang-type chisels are also used to cut and pare wood. However, the driving force required is hand pressure only.

MACHINIST'S CHISELS

Machinist's chisels are designed to cut and shape cold metal and are usually struck with a hammer. The flat or cold chisel is composed of hardened steel and has a tapered cutting edge on one end and a flat base on the other end.



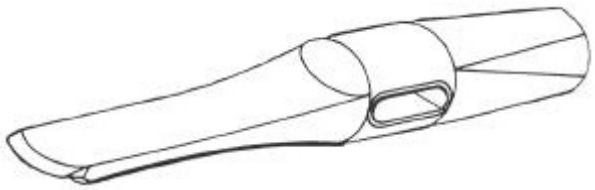
The diamond point chisel has a solid point on one end and a flat base on the other end. It is used for drawing and cutting holes in flat stocks and to cut V-grooves.



The cape chisel has a small solid point on one end and a flat base on the other end. It is used for cutting keyways or slots in metal, and square corners.

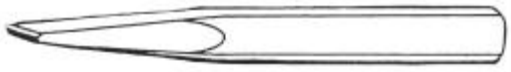
The roundnose chisel has a ground edge on one end and a flat base on the other end and an octagon-shaped stock. It is used to align drilled holes, cut channels, cut oil grooves and similar work.

TRACK CHISEL



The track chisel has a beveled point on one edge and a flat face on the other end. The cutting edge is 1-3/8 inches wide; the overall length is 10-1/2 inches and it weighs 5-1/2 pounds. The track chisel is used with a 22-inch sledge hammer to remove track bolts, boiler rivet heads and cut rail when a saw or cutting torch is not available.

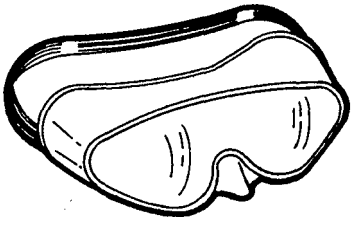
RIVET BUSTER CHISEL



The rivet buster chisel has a single ground flat cutting edge on one end and a flat face on the other end. The cutting edge is about 3/4 inch wide and the overall length is about 9 inches. It is used for cutting off chassis rivets and in other difficult places which cannot be reached by other chisels.

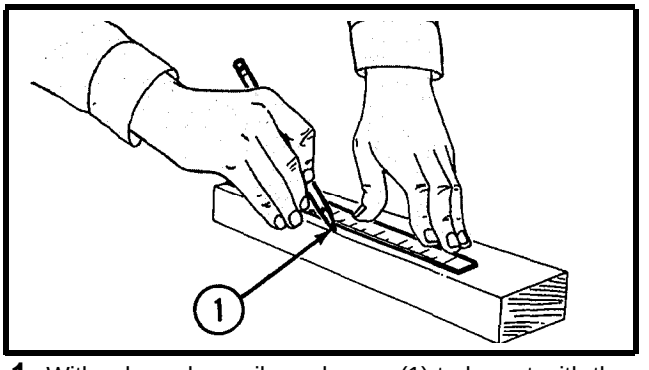
USING A WOODWORKER'S CHISEL

The following procedure is designed for using a woodworker's chisel.

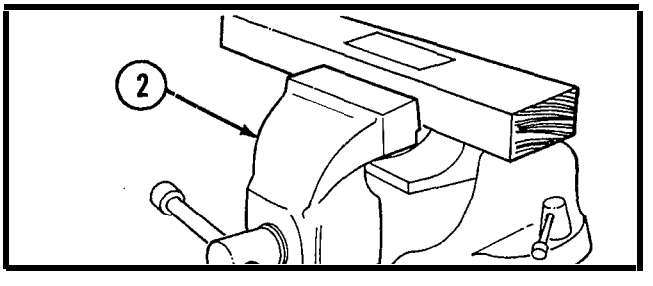


WARNING

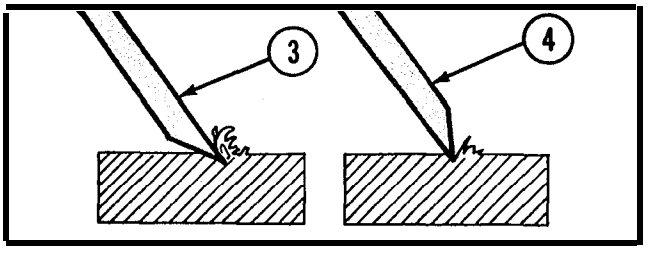
WEAR EYE PROTECTION. KEEP BOTH HANDS BACK OF THE CUTTING EDGE AT ALL TIMES.



1 With rule and pencil, mark area (1) to be cut with the chisel.



2 Examine the grain of the wood, and place securely in a vise (2) so you are cutting with the grain. The wood should not be able to move in any direction.



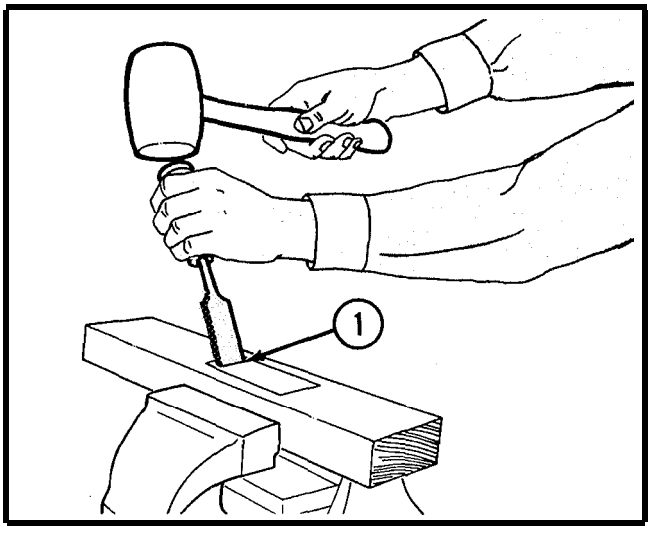
3 Rough cuts are made with bevel side down (3) while smooth finishing cuts (4) are made with bevel side up.

WARNING

NEVER CUT TOWARD YOURSELF WITH A CHISEL

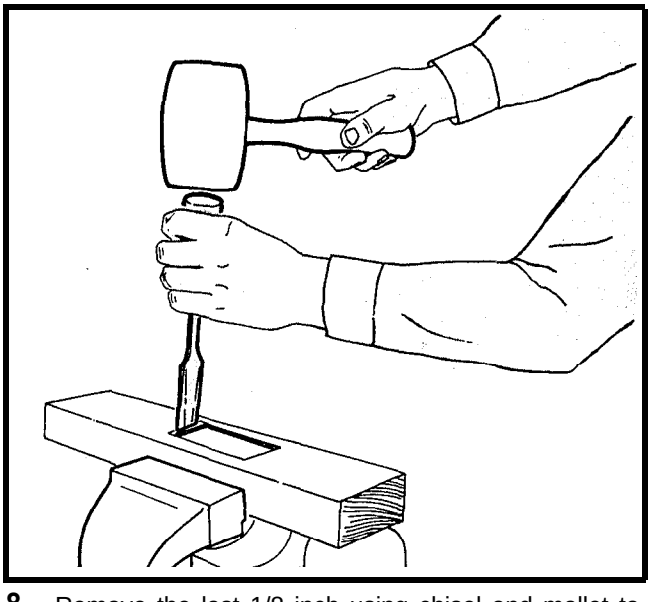
CAUTION

Use short, rapid mallet blows to control depth and length of cut.



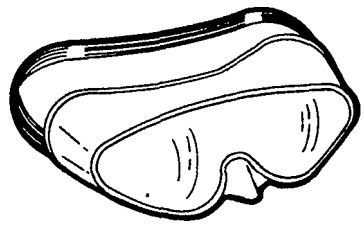
4 Start your cut about 1/8 inch from the guide line (1). Using a chisel and mallet, make your cut toward the center (the waste area) to protect the edge.

5 Make small thin cuts. This prevents breaking or splitting of the work. Check your guide marks often to prevent overcutting.



8 Remove the last 1/8 inch using chisel and mallet to complete the job.

USING A MACHINIST'S COLD CHISEL

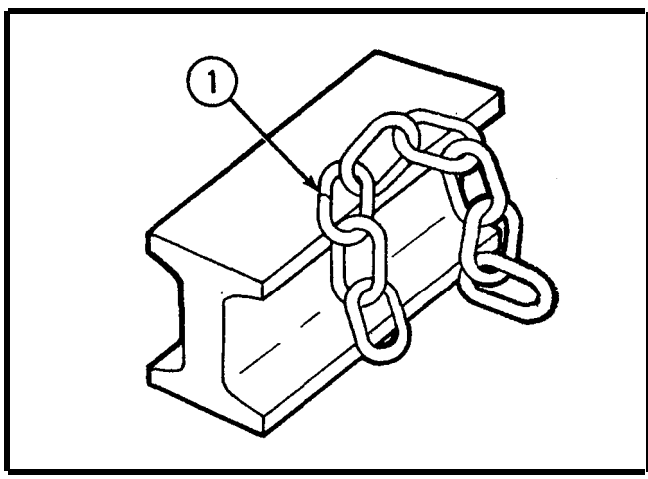


WARNING

WEAR EYE PROTECTION.

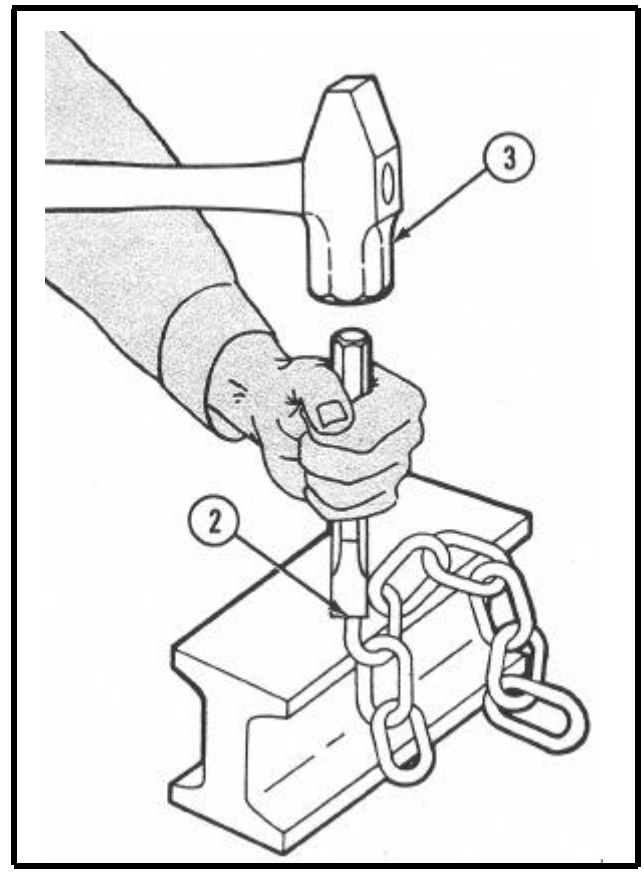
NOTE

The following procedure is designed for using a machinist's cold chisel. However, cutting round stock is not the only use for this type of chisel.



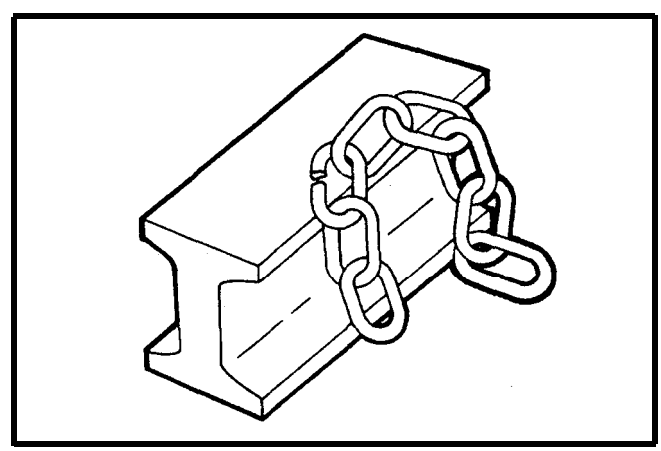
1 With a rule and marking pencil measure desired length and mark.

2 Place mark on a hard steel surface (1) (anvil, closed vise jaws, etc.).



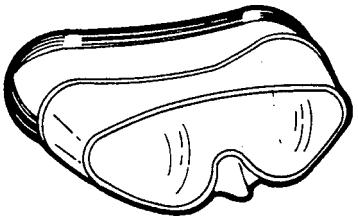
3 Place cutting edge (2) of chisel on the mark with chisel straight up and down.

4 Lightly strike the chisel with a hammer (3) and check chisel mark to be sure you are cutting on the desired mark.



5 Continue striking chisel with the hammer until cut is through the round stock. A larger diameter stock is cut the same way except it is turned over after the cut is about half way through the rod.

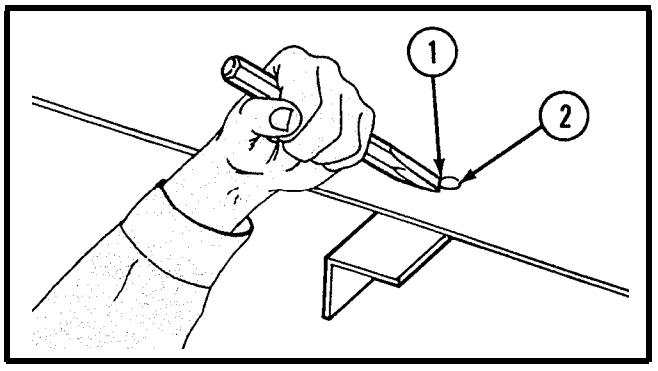
USING A RIVET BUSTER CHISEL



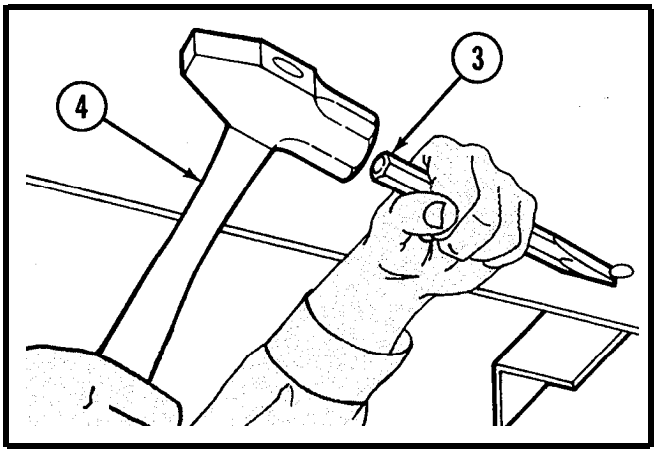
WARNING

WEAR EYE PROTECTION.

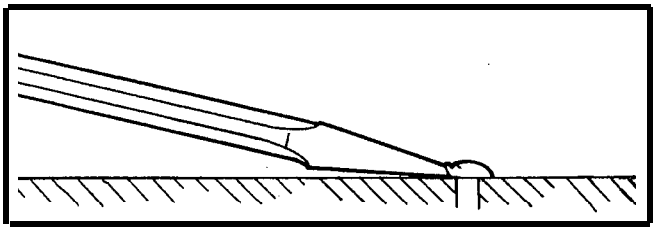
The following procedures are designed for using a rivet buster chisel.



1 Place cutting edge (1) of the chisel firmly against the rivet shaft (2) between the head and the metal.



2 Grip the chisel firmly and strike chisel head (3) with a machinist's or sledge hammer. (4).



3 Continue striking chisel head until rivet head has been cut off.

CARE OF CHISELS

1. Protect the cutting edges by installing protective covers.
2. Store in racks or where they may not be chipped or broken.
3. Lubricate with a light coat of oil before storing.
4. Regrind broken or chipped edges before using.